

Claims

1. Boards (1, 1', 2) having laterally mounted locking elements, characterized in that

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the locking elements (5, 6, 7, 9, 50, 60) are made in such a way that, simultaneously, by displacing the first board (1) relative to the second board (2) along a first common joint (4),

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- the first board (1) can be connected with the second board (2) in a positive fit along the first common connecting joint (4), both in a perpendicular direction relative to the surface (3) of the board, as well as in a parallel direction relative to the surface of the board, and, at the same time, in a perpendicular direction relative to the first common joint (4), and

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- the first board (1) can be connected with the third board (1') in a positive fit along a second common connecting joint (4'), at least in a perpendicular direction relative to the surface (3) of the board.

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2. Boards according to one of the preceding claims, wherein all or some of the locking elements (5, 6, 7, 9, 50, 60) are made in such a way that the displacement can take place exclusively in one plane that is parallel relative to the surface of the board.

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3. Boards according to one of the preceding claims, wherein the first common connecting joint (4) runs in a perpendicular direction relative to the second common connecting joint (4').

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4. Boards (1, 2) having laterally mounted locking elements with which two of the boards (1, 2) can be connected with each other laterally in an adhesive-free manner by positive fit, characterized in that

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the locking elements (5, 6, 7, 9) are made in such a manner, that

- There is an initial position into which, in particular, the boards can exclusively be brought by lowering in a vertical direction, wherein a common joint (4) is formed between the boards (1, 2) in which a play occurs, and

- There is a final position in which the boards are interlocked by positive fit in a vertical direction and in which no play occurs at the common joint (4) and wherein the panels are connected with each other in an adhesive-free manner.

5. Boards according to one of the preceding claims, wherein the boards (1, 2) are to be brought from the initial position into the final position by displacement along the common joint (4).

6. Boards according to one of the preceding claims, wherein the locking elements are such that the boards can be brought into the initial position when, along the common connecting joint (4), they are arranged offset relative to one another by more than 50 % and less than 100 %, preferably more than 66 % and less than 80 %.

7. Boards according to one of the preceding claims, wherein there is an intermediate position in which the boards, at least in vertical direction, are interlocked by positive fit and in which a play occurs at the common joint (4) of the two boards (1, 2).

8. Boards according to one of the preceding claims, wherein

- a board (1), as locking element, has a perpendicular groove (7) that is inserted in a perpendicular direction relative to the surface (3), and
- The other board (2) has at least a corresponding protruding perpendicular locking element (9) which arrives in the perpendicular groove (7) when the boards are in the initial position, wherein

The perpendicular groove (7) and/or a lateral boundary (10) of the perpendicular groove (7), at least in part, have a course that does not run parallel relative to the common joint (4), and/or

the perpendicular locking element (9) and/or a lateral boundary (16) of the perpendicular locking element (9) at least in part have such a course that does not run parallel relative to the common joint (4).

- 5 9. Boards according to one of the preceding claims, wherein, in the final position, a lateral boundary (10) of the perpendicular groove (7) adjoins a lateral boundary (16) of the perpendicular locking element (9) intimately.
- 10 10. Boards according to one of the preceding claims, wherein at least one lateral boundary (10) of the perpendicular groove (7) and/or a lateral boundary (16) of the perpendicular locking element (9) is formed wedge-shaped, in particular has such a course relative to the common joint (4) that the distance to the common joint (4) decreases
15 or increases along the joint in a linear manner.
- 20 11. Boards according to one of the preceding claims, wherein at least one lateral wall (10) of a groove (7) that is provided as a locking element runs in an arched, wave-like, serpentine or sawtooth-like manner.
- 25 12. Boards according to one of the preceding claims, wherein there is at least one contact area (10, 11; 12, 13; 15, 16) between two locking elements (7, 9) which area runs in a perpendicular direction relative to the surface (3).
- 30 13. Boards according to one of the preceding claims, wherein there is at least one contact area (10, 11; 15, 16) between two locking elements (7, 9) formed by undercuts.
- 35 14. Boards according to one of the preceding claims, wherein one board (1) laterally has, as a locking element, at least one groove (5) and another board (2) laterally has at least one tongue (6).
15. Boards according to one of the preceding claims, wherein the bottom surface (61) of the lateral tongue (6) forms a flat surface with

the bottom side of the vertical locking element (9).

16. Boards according to one of the preceding claims, wherein the bottom groove-cheek (51) of the lateral groove (5) forms a flat surface with the bottom of the groove of the perpendicular groove (9).

17. Boards, in particular according to one of the preceding claims, that can be connected in an adhesive-free manner by means of a paste or, in particular, adhesive sealing compound and/or an adhesive between two interlocked boards.

18. Boards according to one of the preceding claims, having a moisture repellant paste or adhesive mass between two boards (1, 2) which adjoins the surface (3) of the boards.

19. Boards according to one of the preceding claims, wherein the boards are laminate panels.

20. Boards according to one of the preceding claims, which are part of a floor covering.

21. Method for connecting boards (1, 1', 2) with laterally mounted locking elements, in particular of boards according to one of the preceding claims, comprising the following steps:

- Displacing the first board (1) relative to the second board (2) along a first common connecting joint (4), wherein simultaneously
- The first board (1) can be connected with the second board (2) in a positive fit along the first common connecting joint (4), both in a perpendicular direction relative to the surface (3) of the board, and in a parallel direction relative to the surface of the board, and, at the same time, in a perpendicular direction relative to the first common connecting joint (4), and
- The first board (1) can be connected with the third board (1') in a positive fit along a second common connecting joint (4'), at

least in a perpendicular direction relative to the surface (3) of the board.

22. Method according to one of the preceding claims, wherein the displacement occurs exclusively in one plane parallel relative to the surface of the board.

23. Method according to one of the preceding claims, wherein the first connecting joint (4) runs in a perpendicular direction relative to the second common connecting joint (4').

24. Method for connecting boards (1, 2) with laterally mounted locking elements, in particular of boards according to one of the preceding claims, wherein two of the boards (1, 2) can be connected laterally by positive fit in an adhesive-free manner, comprising the following steps

- Bringing the boards into an initial position, in particular, exclusively by lowering in a vertical direction, wherein a common joint (4) is formed between the boards (1, 2) in which a play occurs, and
- Bringing the boards into a final position, in which the boards are interlocked in a vertical direction by positive fit, and in which no play occurs at the common joint (4) and the panels are connected in an adhesive-free manner.

25. Method according to one of the preceding claims, wherein the boards (1, 2) are brought from the initial position into the final position by displacement along the common connecting joint (4).